

Nova Scotia

Minerals Update



Department of Natural Resources, Mineral Resources Branch

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NOVA SCOTIA
Natural Resources

Mining Matters 2006: 30th Annual Fall Conference

The 30th annual Mineral Resources Branch Fall conference is rapidly approaching. The event will be held in the unique surroundings of the Westin Nova Scotian Hotel in Halifax on November 8, 9 and 10. In addition to the review of exploration activities, program projects and poster displays, this conference will feature a field trip to one of the province's coal mines and a first-ever Core Shack event where participants will be offered hands-on information on a host of mineral exploration properties through the use of diamond-drill core.

This year's event will start with a field trip to one of Pioneer Coal

Limited's surface reclamation coal mining operations in the Stellarton area. The trip will take place on Wednesday, November 8, leaving from the Westin Nova Scotian Hotel at 8:00 a.m. and returning to the hotel in the late afternoon. This tour is being organized by Don Jones, from the branch's Mineral Management Division, in conjunction with staff from Pioneer Coal. Participants will be given a walking tour of the facilities, as well as a visit to the mine face where they'll see how new, 'home-grown' technology is revitalizing the coal reclamation mining industry. During a scheduled lunch break at the Museum of Industry, local officials will address the impact of coal mining on the surrounding towns. Projects like those of Pioneer Coal are leading the



Pioneer Coal Ltd. coal blending and load-out plant at Stellarton. Workings on the Foord seam are shown to the left of the surface facilities and workings on the Cage seam are visible to the right of the buildings.



Historical mine workings on the Foord seam, Stellarton, are exposed and removed through reclamation coal mining by Pioneer Coal Limited. Prior to reclamation mining these lands were heavily impacted by subsidence and unsuitable for development.

way in environmental stewardship and forging interactive relationships with local communities. Lunch and transportation for this field trip are included in the cost of trip registration. If you've ever wondered what takes place in a modern reclamation coal mine, then don't miss this opportunity to see for yourself.

When the conference opens on the morning of Thursday, November 9, a first-ever Core Shack display will be held in conjunction with the regular poster displays. Diamond-drilling is a fundamental activity used by exploration, mining and environmental companies to assess the huge depths of rock that lie beneath our feet. These displays will feature diamond-drill core selected from a variety of mineral properties across the province. In addition to the display of drill core, presentations by geoscientists from universities, government and private sector exploration companies will discuss the associated project work, including structure, stratigraphy, alteration, geochronology and mineralization. These informal talks will be scheduled at

regular intervals throughout the morning with ample time allowed for questions and discussion.

The afternoon session on Thursday, November 9, will provide an update on province-wide exploration activities and the numerous geological programs being carried out by the Mineral Resources Branch. Speakers will review such things as the status of the branch's new strategic plan, highlight activities in the mining and mineral industry, and discuss specific programs from all three sections of the Geological Services Division (Geological Mapping and Geochemistry, Geoscience Information Services and Resource Evaluation).

The Honourable David Morse, Minister of Natural Resources, will host an evening reception on November 9 from 5 to 7 pm. The event will include a Baron-of-Beef supper, awards presentations, live music and a running slide show. The presence of old acquaintances and numerous departmental Ministers, past and present, always enriches this evening. The reception will take place in the Core

Shack and poster display area, so it should offer participants an extra opportunity to discuss the details of their favourite projects.

You might ask: "What's hot and topical in Nova Scotia these days?" Well, one topic that people from across the province talk about at some length is the coal industry. For this and other reasons, Mining Matters 2006 will feature a special coal session, entitled *The Many Facets of Nova Scotia's Coal Resources*, on Friday morning, November 10. This session is sponsored by the Mining Society of Nova Scotia and the Chamber of Mineral Resources of Nova Scotia and is dedicated to the memory of Dr. Peter A. Hacquebard. A wide variety of selected talks will highlight the role of coal in a global context, as well as discussing Nova Scotia's place in the coal industry. This session will present a realistic discussion of the coal industry and where Nova Scotia coal fits in the global energy picture.

Following the morning coal session, a special luncheon speaker, **Allen Wright**, Executive Director and CEO of the Coal Association of Canada, will round out this year's conference with his insightful presentation: *Changing Dynamics of the Canadian Coal Industry*. Allen, a business professional with over 30 years of experience serving both private and public sector organizations, joined the Coal Association of Canada as its Executive Director and CEO in 2001. The Coal Association of Canada, headquartered in Calgary, Alberta, represents companies engaged in the exploration, development, use and transportation of coal. Its members include major coal producers and coal-using utilities, the railroads and ports that ship coal, and industry suppliers of goods and services. As the sole voice for coal in Canada, the association helps facilitate activities throughout the whole coal chain by advocating on behalf of its members with stakeholders and governments at all levels (provincial, federal and municipal). In addition, the association performs a significant role in educating the public on the current and future uses of coal, its value to the Canadian economy, and on the realities concerning the environmental impacts of coal.

Paul Smith

Prospectors Association Fall Field Trip, 2006

Beautiful weather accompanied members of the Nova Scotia Prospectors Association when they reviewed the excellent potential for metallic and industrial minerals on their field trip to the Stewiacke River valley in late September. After meeting at Mastodon Ridge, the group formed a convoy to the Coldstream paleoplacer site, also known as the Gays River Gold District. Workers in the late 1800s extracted gold from Carboniferous conglomerates at the unconformable contact with Meguma Group metasedimentary rocks. Coldstream is an important site in the consideration of the basal Horton Group as host to a possible Witwatersrand-type gold deposit. Many members panning the stream (see photo) were rewarded for their efforts.

Next, a stop on the road close to the Gays River lead-zinc mine was used to review the deposit geology and exploration history, and illustrate the present development of an open-pit mine. Members then travelled to Sibley Mountain to visit a long-abandoned quarry that produced roofing shingles for Halifax and England in the latter part of the 1700s.

The group proceeded next to the Brookfield barite deposit and the Chambers and Pearson iron mines. The Brookfield mine currently produces barite ore for a high-value pharmaceutical-grade milling operation in Debert operated by E-Z-EM CANADA INC. After examination of the barite operation, the group rounded out the day with a study of the hematite-barite mineralization at the abandoned Chambers and Pearson Iron Mine a few hundred metres east of the Brookfield deposit.

The next day of the trip started with an examination of veins and pods of pure white barite in Carboniferous limestone of the Macumber Formation (base of the Windsor Group) at the Middle Stewiacke barite deposit. From this site the group proceeded to the former Smithfield lead-zinc-copper mine. This galena, sphalerite and pyrite

deposit is also found in Macumber Formation limestone.

The Stewiacke River gold prospect was the next stop, where native gold was discovered in Carboniferous sedimentary rocks in 1996 by Caledonia Mining Corporation. Originally thought to be a paleoplacer deposit, there are features at the site to suggest it is actually hydrothermal in origin. The group enjoyed lunch at this picturesque location on the river close to a waterfall.

The next stop was the Eastville zinc prospect. This interesting, but very poorly exposed, sphalerite occurrence is hosted by Cambro-Ordovician meta-

sedimentary rocks of the Meguma Group. Discovered and explored as a sedimentary-exhalative deposit in the late 1970s, the group discussed features that suggest the mineralization was actually much younger and related to hydrothermal fluids migrating along faults and shear zones of the Cobequid-Chedabucto Fault System. The final stop of the field trip was to Hirtle Lake, very close to Eastville, where altered granites may be an ideal candidate for production of the hydrothermal fluids that could have given rise to the base metal mineralization at Eastville.

Ron Mills and George O'Reilly



Patience was rewarded at Coldstream, as most who panned found some visible gold.

Mining Matters for Nova Scotia 2006

Program

Wednesday, November 8

Pre-conference Field Trip to Pioneer Coal Ltd. Reclamation Mine, Stellarton

There are 30 spaces available for interested participants. The field trip will be run at cost (\$65.00) on a first-come – first-served basis. The bus will depart from the front of the Westin Hotel at approximately 8:00 a.m. and will return to the Westin in late afternoon. For further information and registration, please register online at: <http://www.gov.ns.ca/natr/meb/oh/index.htm> or contact Valerie Brisco at: VJBRSICO@gov.ns.ca or phone: (902) 424-1580.



Aerial view of the Pioneer Coal Ltd. reclamation mine in Stellarton, Pictou County. Highway 104 cuts across the top left of the photo.

Thursday, November 9

Commonwealth Ballroom A and B, The Westin Nova Scotian Hotel, Halifax

Core Shack and Poster Display Session

- | | |
|--------------------------|--|
| 9:00 am - 7:00 pm | Registration (Commonwealth Foyer) |
| 9:00 am | Coffee and Refreshments (Commonwealth B) |
| 9:30 am | Displays Open (Commonwealth B) |

Informal talks will be given throughout the morning at the Core Shack display, with ample time for questions and discussion.

Review of Activities, Mineral Resources Branch

- | | |
|--------------------------|--|
| 1:30 pm - 1:35 pm | <i>Welcoming Remarks</i> , Scott Swinden |
| 1:35 pm - 2:00 pm | <i>The Next Ten Years: Implementing a Strategic Plan for the Geological Services Division</i> , Mike MacDonald |

Mining Matters for Nova Scotia 2006 (continued)

2:00 pm - 2:20 pm	<i>Movers and Shakers of Nova Scotia's Exploration Industry, 2006, Paul Smith</i>
2:20 pm - 2:40 pm	<i>Overview of Geoscience Information Services, Norman Lyttle</i>
2:40 pm - 2:50 pm	<i>Current Focus and Future Direction for Geological Mapping and Geochemistry, Rob Naylor</i>
2:50 pm - 3:10 pm	<i>Advances in Understanding the Geology of the Meguma Group, Rick Horne and Chris White</i>
3:10 pm - 3:25 pm	<i>Overview of Geochemistry Projects, Terry Goodwin</i>
3:25 pm - 3:45 pm	Coffee Break
3:45 pm - 4:00 pm	<i>Summary of Mineral Deposit Studies: Connecting the Dots, Bob Ryan</i>
4:00 pm - 4:15 pm	<i>Building Partnerships: Economic Development Opportunities for Industrial Minerals, Garth DeMont</i>
4:15 pm - 4:30 pm	<i>Tourism and Geology: Making the Most of our Geological Resources, John Calder</i>
5:00 pm	Reception, hosted by the Hon. David Morse, Minister of Natural Resources, Cost \$10

Friday, November 10

8:30 am - 12:00 pm	Registration
8:30 am - 12:00 pm	Displays Open (Commonwealth A)
8:30 am - 9:00 am	Coffee and Refreshments

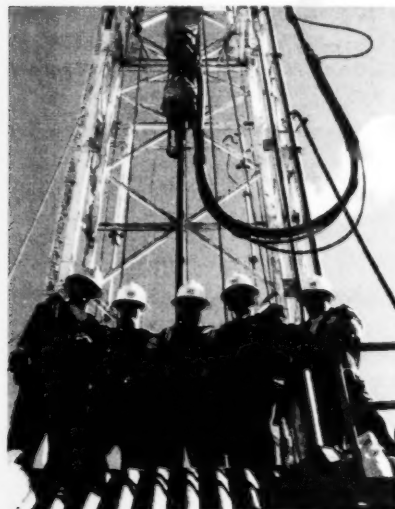
Special Coal Session, Dedicated to the Memory of Dr. Peter A. Hacquebard

8:45 am - 9:00 am	<i>Dr. Peter A. Hacquebard, Gentleman and Scholar of Coal Geoscience, Mike Avery, GSC-Atlantic, and John Calder</i>
9:00 am - 9:20 am	<i>Geology of Nova Scotia's Coal Basins: Current Insight, John Calder</i>
9:20 am - 10:00 am	<i>Xstrata Coal: The North American Coal Scene and the Donkin Project, Jeff Gerard and Darren Nicolls, Xstrata Coal</i>
10:00 am - 10:20 am	Coffee Break, Sponsored by the Mining Society of Nova Scotia
10:20 am - 10:40 am	<i>Back to the Earth: Reclamation of Coal Mines in Nova Scotia, Don Jones</i>
10:40 am - 11:00 am	<i>Pioneer Coal: Lessons from Working with Communities, Peter Orem, Conestoga-Rovers and Associates</i>
11:00 am - 11:20 am	<i>Joggins, Coal Phoenix: From Former Coal-mining Town to the World Heritage Stage, Jenna Boon, CREDA</i>
11:20 am - 11:40 am	<i>Coalbed Methane Exploration and Development in Nova Scotia, Arden Thompson, Stealth Ventures Ltd.</i>
11:40 am - 12:00 pm	<i>Coal and the Environment: Limits and Possibilities of New Technologies, Bill Richards, Emera/NSPI</i>
12:00 pm - 2:00 pm	Lunch, Atlantic Ballroom, Keynote Speaker Allen Wright, the Coal Association of Canada: <i>Changing Dynamics of the Canadian Coal Industry</i> , Cost \$20.
3:00 pm	Conference Closed

Update on Coalbed Methane Exploration in Springhill

By early October 2006, Stealth Ventures Ltd. of Calgary had completed drilling three directional wells at Springhill to investigate coalbed methane potential (see *Nova Scotia Minerals Update*, v. 23, no. 2). The results of drilling are reported to be favourable, and the technical achievement of directional drilling within individual coal beds has been highly successful. Production testing is now underway to ascertain the viability of the coalbed methane resource. The feat of deflecting a drill stem from vertical to 15°, and then following the target seam for over 1 km, is taken in stride by the drill crew of Precision Drilling, for whom directional drilling is a matter of course in western Canada. The ability to access a large subsurface area from one well site minimizes the environmental footprint of the operation. Members of the drill crew at Springhill hail from Newfoundland to Alberta, and include local additions from Nova Scotia.

John Calder



Drillers at the Stealth Resources Ltd. Springhill site.

July - September Open Assessment Reports

Report Number	NTS	Licensee
AR ME 2002-061	21A/16D	True Metallic Explorations Incorporated
AR ME 2004-072	11E/08D 11F/05C	Monster Copper Resources Incorporated
AR ME 2004-073	11F/05A, C, D	Monster Copper Resources Incorporated
AR ME 2004-074	11E/05C, D	Monster Copper Resources Incorporated
AR ME 2004-075	11K/02C	Burrell, W A
AR ME 2004-076	11K/02C	Keeping, A
AR ME 2004-077	11K/02C	Keeping, A
AR ME 2004-079	11F/14A	Richman, J
AR ME 2004-080	11K/10A	Goldenville Mining Corporation
AR ME 2004-081	11K/10A	Goldenville Mining Corporation
AR ME 2004-082	11K/10A	Goldenville Mining Corporation
AR ME 2004-083	11E/05D	Allen, L J
AR ME 2004-084	11F/04D 11F/05A, B	Hudgins, A B
AR ME 2004-085	11E/04B	Goldenville Mining Corporation
AR ME 2004-086	11E/02B	Goldenville Mining Corporation
AR ME 2004-087	11F/05A, B	Acadian Gold Corporation
AR ME 2004-088	11E/02A	Acadian Gold Corporation
AR ME 2004-089	11E/07C, D	Monster Copper Resources Incorporated
AR ME 2004-090	11F/16B, C	Yava Technologies Incorporated
AR ME 2004-091	11E/02D	Grant, S
AR ME 2004-094	11E/02D	Goldenville Mining Corporation
AR ME 2004-096	11F/14C	Glencoe Resources Incorporated
AR ME 2004-097	21A/07C	Crouse, A R
AR ME 2004-098	11F/14D	Grant, S
AR ME 2004-099	11E/02B 11E/03A	Allen, L J
AR ME 2004-100	21A/07B	Hooper, A D
AR ME 2004-101	11D/14C	Allen, L J
AR ME 2004-102	11E/05C	Allen, L J
AR ME 2004-103	11E/01A, D 11F/04B, C	Goldenville Mining Corporation
AR ME 2004-104	11D/11C	Goldenville Mining Corporation
AR ME 2004-105	11E/07D	Annapolis Valley Goldfields Incorporated
AR ME 2004-106	11F/05C	Schenkels, H F
AR ME 2004-107	11F/04D	Goldenville Mining Corporation
AR ME 2004-112	11E/06D 11E/07C 11E/11A	Hudgins, A D
AR ME 2004-115	11E/11B	Cobequid Gold Corporation Limited;
AR ME 2004-125	21A/07C	Grant, S
AR ME 2004-141	11E/08D	Allen, L J
AR ME 2005-003	11E/07D	Hudgins, A D
AR ME 2005-006	11F/05A, B, C	Hudgins, A B

Susan Saunders and Norman Lyttle

DNR Participates in Annual Energy and Mines Ministers' Conference

The annual Energy and Mines Ministers Conference was held in Whitehorse, Yukon Territory, from August 27 to 30, 2006. The DNR delegation included the Hon. David Morse, Minister, Peter Underwood, Deputy Minister, and Scott Swinden and Mike MacDonald from the Mineral Resources Branch. This annual conference provides an opportunity for federal, provincial and territorial governments to meet and discuss issues of mutual interest, and to receive input and feed-back from industry and non-industry groups.

On Monday, August 28, Minister Morse and department representatives participated in a tour of the former Faro lead-zinc mine site, located approximately 200km northeast of Whitehorse. When in production, Faro was one of the largest open-pit lead and zinc mines in the world. Following a tour of the former mine complex, delegates received an overview of reclamation plans, including the challenges and proposed solutions, as well as the approach the federal and Yukon governments are taking to involve the community and local First Nations in long-term remediation plans for the site. With three large open pits, approximately 325 million tonnes of waste rock, a mineral concentrator plant, and approximately 60 million tonnes of tailings, the Faro mine poses a significant challenge for reclamation. The tour provided Minister Morse a first-hand opportunity to see some of the issues in dealing with abandoned and orphaned mines.

The Mines Ministers' meeting was held on Tuesday, August 29, and consisted of an open session in the morning and closed session in the afternoon. Presentations in the open session were made by several groups including the Mining Association of Canada, Prospectors and Developers Association of Canada, the Aboriginal



Fifty-year-old planes like this Hawker-Siddeley turbo-prop are essential means of transport in Canada's north. This photo shows participants from the Energy and Mines Ministers' field trip boarding for the return trip from Faro to Whitehorse. When in production, Faro was one of the largest open-pit lead-zinc mines in the world. The former mine is now the site of a long-term reclamation project.

Human Resources Development Council of Canada, and the Canadian Association of Mining Equipment and Services for Export (CAMESE). Some of the themes presented to the Ministers included: support for a Cooperative Geoscience Mapping Strategy; the looming Human Resources deficit in the mining industry and the need to increase the representation by women and aboriginals; calls for regulatory reform and the need to streamline the regulatory regime, including the introduction of performance standards and measurement systems; and the extension of the current "flow-through financing" mechanism for mineral exploration in Canada. Discussions in the closed session focused on two main

themes: regulatory reform and the proposed Cooperative Geoscience Mapping Strategy. The Cooperative Geological Mapping Strategy (CGMS) is a proposal whereby federal, provincial and territorial governments can cooperate to enhance the geoscience knowledge base for Canada, to maintain its competitive advantage, and re-establish it as the pre-eminent global destination for exploration dollars. The specific objectives of CGMS are to increase investment in mineral and energy exploration, to stimulate new discoveries, to identify new, previously unrecognized resources in mature areas, and to help ensure sustainable development.

Mike MacDonald

Personnel Changes in the Mineral Resources Branch

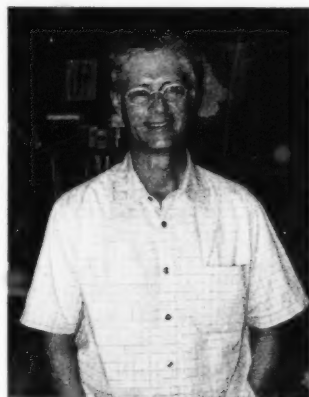
On October 16, David Sun joined the Mineral Resources Branch as a Geoscience Database Design Specialist. David is employed with the branch in a two-year term position under the Nova Scotia Public Service Commission's Career Starts Post Secondary Internship Program. David graduated from Dalhousie University in August 2005 with a B. Sc. in Computer Science. Before joining the Mineral Resources Branch, David was a database programmer/designer with the Nova Scotia Department of Environment and Labour in Halifax.

David will be working as a database specialist, under the supervision of Brian Fisher. David's tasks will be to convert and re-design current databases on abandoned mines, mineral occurrences, drillholes and drill core. David will enable these databases to run on Microsoft Access and SQL Server database management systems, create data entry modules and report-generating capabilities, create Internet-accessible public search screens for the databases along the model of the current NovaScan database, and incorporate these databases into the branch GIS.

The recent retirement by Ralph Stea, resignation by Dan Kontak, and appointment of Mike MacDonald to the position of Director, resulted in vacancies for all three of the senior geologist positions in the Geological Services Division. The process for filling these positions has been completed and successful applicants have been se-



David Sun



John Calder



Paul Smith (L) and Terry Goodwin (R).

lected. Terry Goodwin is the new senior geologist in the Geological Mapping and Geochemistry section and he will report to Manager, Rob Naylor. John Calder is the new senior geologist in the Resource Evaluation section and he will report to Manager Bob Ryan. Paul Smith is the new Liaison Geologist and he will report to Director Mike MacDonald. The positions vacated by these staff members, coupled with Rob Naylor's former position resulting from his appointment as Manager, now provides the division with four positions to fill. Staff and management will be discussing roles and responsibilities for these vacant positions, in light of the priorities set out in a recently completed Strategic Plan for the division.

Mike MacDonald and Norman Lytle

Dates to Remember

October 26-28, 2006

Atlantic Universities Geological Conference (AUGC), Dalhousie University, Halifax, Nova Scotia. For more information visit the web site: <http://meguma.earthsciences.dal.ca/AUGC>

November 2-4, 2006

Mineral Resources Review 2006, Newfoundland Department of Natural Resources, and Fall Meeting of the Newfoundland Branch CIM, Delta St. John's Hotel, St. John's, Newfoundland. For more information contact Norm Mercer (709-729-6193).

November 6-8, 2006

Exploration and Mining New Brunswick 2006, Delta Hotel, Fredericton, New Brunswick. For more information e-mail: carol.mcneil-dobbelsteyn@gnb.ca.

November 9 and 10, 2006

Mining Matters 2006, Westin Nova Scotian Hotel, Halifax, Nova Scotia. For more information see the article on page 4 or contact Paul Smith at 902-424-2526.

January 29-February 1, 2007

Mineral Exploration Roundup, Westin Bayshore, Vancouver, British Columbia. For more information visit the web site: <http://www.amebc.ca/roundupoverview.htm#>

February 2 and 3, 2007

Atlantic Geoscience Society, 33rd Colloquium and Annual General Meeting, Delta Beausejour Hotel, Moncton, New Brunswick. For more information visit the web site: <http://ags.earthsciences.dal.ca/ags.php>.

April 29-May 2, 2007

2007 CIM Conference and Exhibition, Theme: Energy and Mines, Organized by the Canadian Institute of Mining, Metallurgy and Petroleum, Palais des congrès de Montréal, Montréal, Canada. For more information contact : Jean-Marc Demers, 514-939-2710, e-mail: jmdemers@cim.org, or visit the web site: www.cim.org.

